

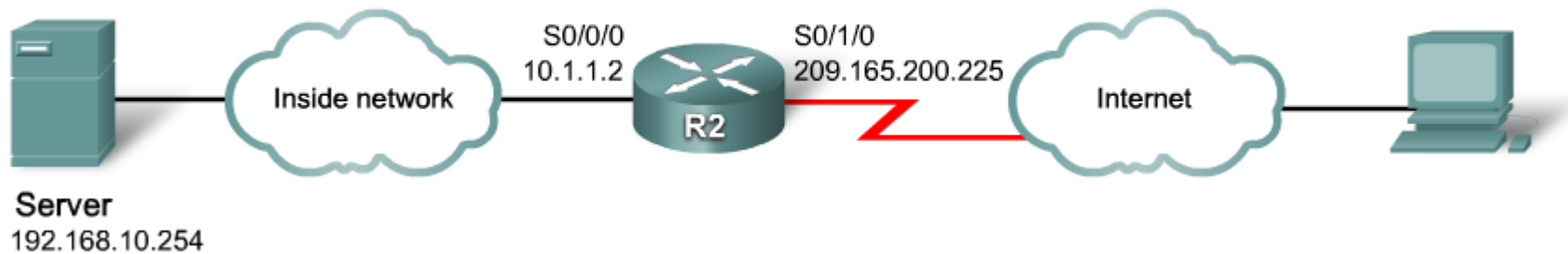
SEDINTA 3

NAT

NAT generally only translates IP addresses on a 1:1 correspondence between publicly exposed IP addresses and privately held IP addresses

Static NAT is a permanent one-to-one mapping between an inside address and an outside address

Configuring Static NAT

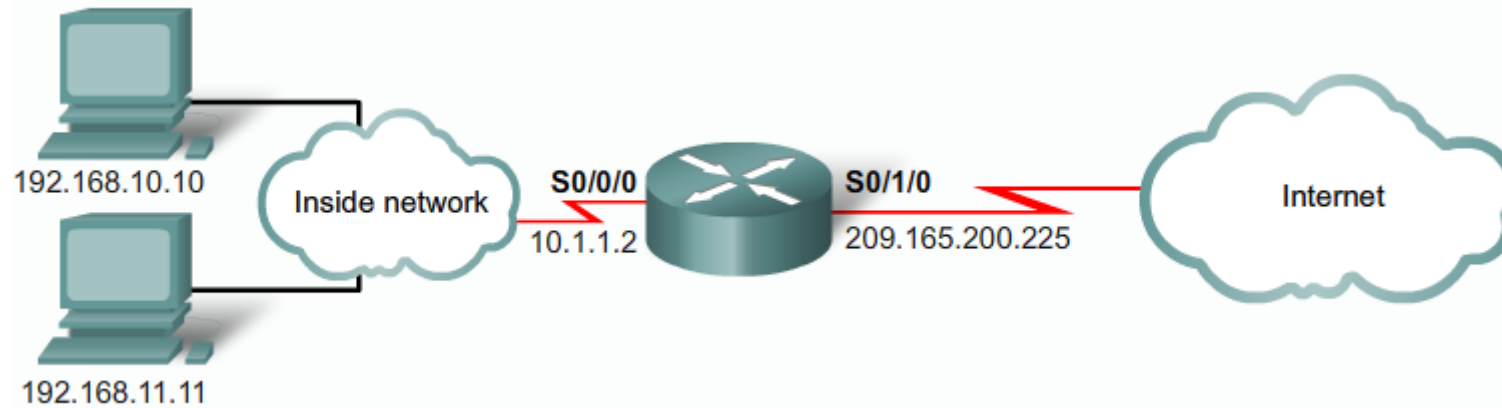


```
ip nat inside source static 192.168.10.254 209.165.200.254
!Establishes static translation between an inside local address and an inside global address.
interface serial 0/0/0
ip nat inside
!Identifies Serial 0/1/0 as an outside NAT interface.
interface serial 0/1/0
ip nat outside
!Identifies Serial 0/1/0 as an outside NAT interface.
```

With this configuration, 192.168.10.254 will always translate to 209.165.200.254.

Dynamic NAT maps private IP addresses to public addresses.

- public IP addresses come from a NAT pool



```
ip nat pool NAT-POOL1 209.165.200.226 209.165.200.240 netmask 255.255.255.224
```

```
!Defines a pool of public IP addresses under the pool name NAT-POOL1
```

```
access-list 1 permit 192.168.0.0 0.0.255.255
```

```
!Defines which addresses are eligible to be translated
```

```
ip nat inside source list 1 pool NAT-POOL1
```

```
!Binds the NAT pool with ACL 1
```

```
interface serial 0/0/0
```

```
    ip nat inside
```

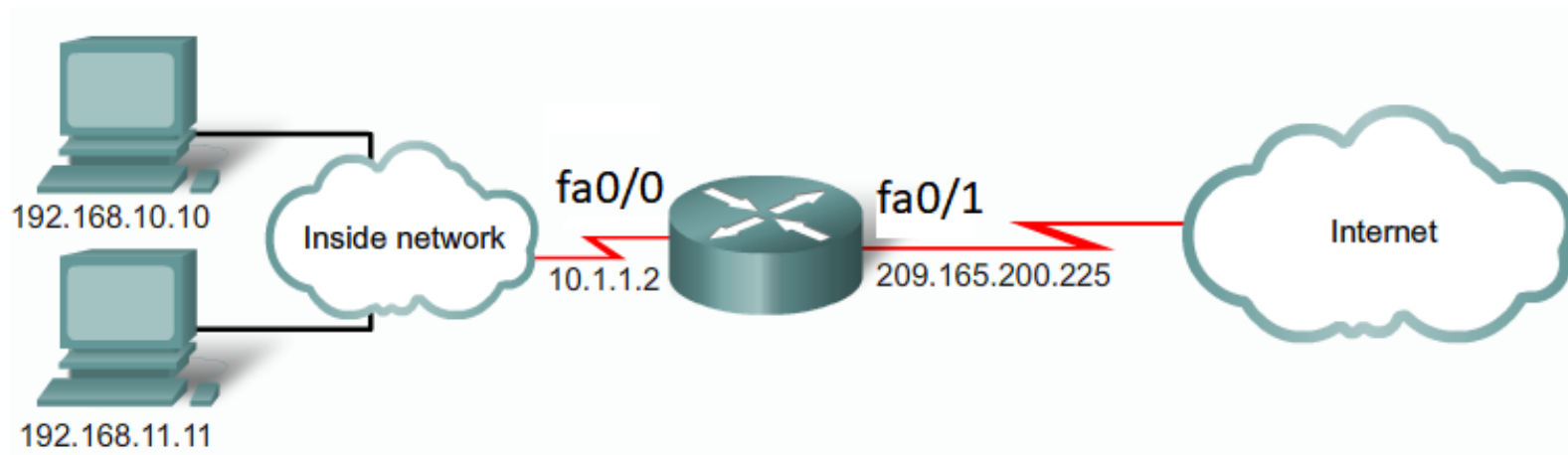
```
!Identifies interface Serial 0/0/0 as an inside NAT interface
```

```
interface serial 0/1/0
```

```
    ip nat outside
```

```
!Identifies interface Serial 0/1/0 as the outside NAT interface
```

NAT overloading (sometimes called Port Address Translation or PAT) maps multiple private IP addresses to a single public IP address or a few addresses



```
access-list 1 permit 192.168.0.0 0.0.255.255
! – Defines which addresses are eligible to be translated
ip nat pool NAT-POOL2 209.165.200.226 209.165.200.240 netmask 255.255.255.224
! – Defines a pool of addresses named NAT-POOL2 to be used in NAT translation
ip nat inside source list 1 pool NAT-POOL2 overload
! – Binds the NAT pool with ACL 1
interface fa0/0
ip nat inside
! – Identifies interface Serial 0/0/0 as an inside NAT interface
interface fa0/1
ip nat outside
! – Identifies interface Serial 0/1/0 as an outside NAT interface
```

OBS: Lista de acces 1 poate avea mai multe comenzi permit

Verify NAT translations:

Router#show ip nat translations